the nature of clarification or elimination of conflicting rules. The only fundamental change concerns lectotypification. Implicit lectotypification, that is, lectotypification expressed by a taxonomic treatment rather than by an explicit statement, has been outlawed, both in the past and in the future. Thousands of lectotypifications may be affected, especially at the level of species and infraspecific taxa, but the full effect of the new ruling will not be known for many years. I should mention that the official Berlin Code will be in English only, resulting in a prompter, smaller, and less expensive publication compared to previous versions.

Finally, I want to say that all the congressists enjoyed Berlin and Berliners. It is an open-minded, cosmopolitan city, making up for its lack of beauty by its tremendous energy and excitement.—PAUL C. SILVA, Herbarium, Department of Botany, University of California, Berkeley 94720. (Received 9 Nov 1987; revision accepted 22 Feb 1988.)

TYPIFICATION OF *Chaenactis alpina* (ASTERACEAE).—Asa Gray cited no specimens when he described *Chaenactis douglasii* var. *alpina* (Synoptical Fl. N. Amer. 1²:341, 1884). The range was given as "Alpine region of the Rocky and Cascade Mountains in Colorado and Wyoming, of the Sierra Nevada, California, and north to Washington Terr." Stockwell (Contr. Dudley Herb. 3:113, 1940) designated a type, "Alta, Wasatch Mountains, Utah, *M. E. Jones 1232.* (NY)" and stated "Type of A. Gray not known." There is no indication on the sheet that Gray ever saw this specimen. In GH there are at least five collections prior to 1884 with the name "var. alpina" and "Syn. Fl." on the sheets, including two collections each from California (*Hooker and Gray s.n.* in 1877, *Brewer 1901*) and Colorado (*Parry 55, Hall and Harbour 283*) and one collection possibly from Wyoming (not labeled but next to label for *C. douglasii* specimen from Wyoming). These account for Gray's distribution except for Washington Territory. One sheet contains a fragment collected by Geyer apparently at Spokane Falls but belongs to another species. It can be safely concluded that this material represents some or all of that which Gray used to describe var. *alpina,* and the lectotype must therefore be chosen from among these specimens [Art. T.4.(a), ICBN].

There are two elements represented in the specimens I take to be type material, a glandular or viscid-hirsute element and a tomentose or lanate element. Only the Hall and Harbour specimen fits Gray's description completely because it is the only specimen with complete rootstocks. It is not, however, the typical variety of Stockwell and others (Harrington, Manual Pl. Colorado 588, 1964; Welsh et al., A Utah Fl. 163, 1987). Another specimen (*Parry 55*), which fits Gray's protologue except for lacking complete rootstocks, is therefore chosen as the lectotype in order to preserve current usage [Art. T.4.(e), ICBN].

Stockwell's varieties *rubella* and *leucopsis* appear to be the same taxon. Var. *leucopsis* is taken up here to be consistent with Harrington (Manual Pl. Colorado 588, 1964) and Welsh (Great Basin Naturalist 43:235, 1983). The nomenclature is summarized below.

CHAENACTIS ALPINA (Gray) Jones, Proc. Calif. Acad. Sci. II, 5:699. 1895.—*Chaenactis Douglasii* Hook. & Arn. var. *alpina* Gray, Synoptical Fl. N. Amer. 1²:341. 1884.—Lectotype: CO, headwaters of Clear Creek and alpine ridges e. of Middle Park, 1861, *Parry 55* (GH!).

Chaenactis pedicularia Greene, Pittonia 4:98. 1899. Holotype: CO, La Plata Mts., Little Kate Mine, 11,500 ft, *Baker, Earle, and Tracy 536,* 16 Jul 1898 (ND-G; isotype: RM!, US).

Chaenactis pumila Greene, Leafl. Bot. Observ. Crit. 2:221. 1912. Holotype: CA, peak near Sonora Pass, 11,500 ft, *Brewer 1901* (US; isotype: GH!).

CHAENACTIS ALPINA (Gray) Jones var. LEUCOPSIS (Greene) Cock. ex. Stockw., Contr. Dudley Herb. 3:114. 1940.—*Chaenactis leucopsis* Greene, Leafl. Bot. Observ.

Crit. 2:221. 1912.—*Chaenactis alpina leucopsis* (Greene) Cock., Univ. Colorado Stud. 11:218. 1915. Holotype: CO, Needle Mountains, 14 Jul 1901, *Whitman Cross 61* (US!).

Chaenactis rubella Greene, Leafl. Bot. Observ. Crit. 2:222. 1912.—*Chaenactis alpina* var. *rubella* (Greene) Stockw., Contr. Dudley Herb. 3:114. 1940. Holotype: northwest Wyoming, 31 Aug 1893, *J. N. Rose 298* (US!).

Variety *alpina* has peduncles and involucres glandular to densely viscid-hirsute with occasionally two to several heads per scape. Variety *leucopsis* has peduncles and involucres tomentose or lanate with usually one head per scape.

Loan of type specimens by US and GH and use of facilities at RM are gratefully acknowledged. Barbara Hellenthal checked for type material at ND-G.—Robert D. Dorn, Box 1471, Cheyenne, WY 82003. (Received 31 March 1987; revision accepted 30 Nov 1987.)

Chenopodium simplex, an Older Name for *C. gigantospermum* (Chenopodiaceae).—Edwin James with the Long Expedition to the Rocky Mountains collected a species of *Chenopodium* in 1820 that John Torrey described in 1827 as a new variety of the European *C. hybridum* L. Torrey thought that it might be a new species. Rafinesque raised it to a species in 1832. These names, *C. hybridum* var. *simplex* Torrey and *C. simplex* (Torrey) Raf., apparently have been largely overlooked ever since. Standley [N. Amer. Flora 21(1):13, 1916] and Wahl (Bartonia 27:30, 1954) do not include them in their treatments, but the Rafinesque combination does appear in Merrill (Index Rafinesquianus, The Arnold Arboretum, p. 118, 1949), and Torrey's variety appears in the Gray Herbarium Index. The holotype is the North American plant that has been called *C. gigantospermum* or *C. hybridum* var. *gigantospermum.* These names must be replaced by *C. simplex* or *C. hybridum* var. *simplex,* respectively.

Bassett and Crompton (Canad. J. Bot. 60:600, 1982) selected a Macoun specimen at CAN for the lectotype of *C. gigantospermum* Aellen. Article T. 4. (c) of the International Code states: "If no holotype was designated by the original author and if *syntypes* (Art. 7.7) exist, one of them must be chosen as the lectotype." The CAN specimen, therefore, would be a duplicate of the lectotype and the Macoun specimen at US would be the lectotype because Aellen cited only specimens from US (except for one in his own herbarium). Wahl (Bartonia 27:16, 30, 1954), Baronov (Rhodora 66:168–171, 1964), and Bassett and Crompton (Canad. J. Bot. 60:600, 1982) discuss the differences between the European *C. hybridum* and the North American *C. simplex* (as *C. gigantospermum*). The nomenclature is summarized below.

Chenopodium simplex (Torrey) Raf., Atlantic J. 1:146. 1832.—*Chenopodium hybridum, β? simplex* Torrey, Ann. Lyceum Nat. Hist. New York 2:239. 1827.—Holotype: "Near Council Bluff, on the Missouri," *Edwin James s.n.* in 1820 (NY!).

Chenopodium gigantospermum Aellen, Feddes Repert. Spec. Nov. Regni Veg. 26: 144. 1929.—*Chenopodium hybridum* var. *gigantospermum* (Aellen) Rouleau, Naturaliste Canad. 71:268. 1944.—Lectotype by Bassett and Crompton (Canad. J. Bot. 60:600, 1982): British Columbia, Vernon, 9 Jul 1889, *Macoun s.n.* (US, photo RM!; isolectotype CAN, photo DAO).

Loan of type material by NY and use of facilities at RM are gratefully acknowledged.—Robert D. Dorn, Box 1471, Cheyenne, WY 82003. (Received 30 Mar 1987; revision accepted 30 Nov 1987.)

Arabis breweri S. Wats. var. *austinae* (Greene) Roll. (Cruciferae)—Ventura Co.: Rose Valley Falls, Sespe Valley, 7 Mar 1947, *Pollard s.n.* (CAS). Monterey Co.: Santa Lucia Range, n. slope of Twin Peak, trail between Goat Camp and Trail Spring